

Claims 1-67 (cancelled)

68. (original) A measuring apparatus for measuring genetic sequence of electrically charged biopolymers by hybridization, said apparatus comprising:

a container that contains known biopolymer segments fixed onto an inner wall of said container and unknown biopolymer segments existing in a solution contained within said container, which are to be hybridized, said container being removable from said measuring apparatus; and

one or more electrodes disposed to be adjacent to said container for applying an electric field to said container, said one or more electrodes being electrically insulated from said container, and further being provided with protrusions formed at spatial positions corresponding to sites whereat gather a plurality of types of biopolymer segments within said container, wherein

conductive members are formed at spatial positions corresponding to said sites.

69 (original) The apparatus of claim 68, wherein said biopolymer segments are DNA, RNA, PNA or electrically charged proteins.

70.(currently amended) A measuring apparatus for measuring genetic sequence of electrically charged biopolymers by hybridization, said apparatus comprising:

a container that contains known biopolymer segments fixed onto an inner wall of said container and unknown biopolymer seg-

ments existing in a solution contained within said container, which are to be hybridized, said container being removable from said measuring apparatus; and

one or more electrodes disposed to be adjacent to said container for applying an electric field to said container, said one or more electrodes being electrically insulated from said container, and further being provided with protrusions formed at spatial positions corresponding to sites whereat gather a plurality of types of biopolymer segments within said container, wherein

said container is made of a film, and said one or more electrodes are in mechanical contact with said container and are made-of-transparent-film .

71. (original) The apparatus of claim 70, wherein said biopolymer segments are DNA, RNA, PNA or electrically charged proteins.

72. (original) The apparatus of claim 68, wherein said container is made of a film.

73. (cancelled)

74.(currently amended) A measuring apparatus for measuring genetic sequence of electrically charged biopolymer by hybridization, said apparatus comprising:

[a] an insulating container that contains known biopolymer segments fixed onto an inner wall of said container and unknown biopolymer segments existing in a solution contained within said container, which are to be hybridized, said container being removable from said measuring apparatus; and

one or more electrodes disposed to be adjacent to said con-

tainer for applying an electric field to said container, said one or more electrodes being electrically insulated from said container, and further being ~~provided-with-protrusions~~ formed at least at spatial positions corresponding to sites whereat gather a plurality of types of biopolymer segments within said container, wherein said one or more electrodes are transparent electrodes.

75.(original) The apparatus of claim 74, wherein said one or more electrodes are made of ITO film.

76. (original) A measuring apparatus for measuring genetic sequence of electrically charged biopolymers by hybridization, said apparatus comprising:

a container that contains known biopolymer segments fixed onto an inner wall of said container and unknown biopolymer segments existing in a solution contained within said container which are to be hybridized, said container being removable from said measuring apparatus;

one or more electrodes disposed to be adjacent to said container for applying an electrical field to said container, said one or more electrodes being electrically insulated from said container; and

means for altering direction of said electric field so that wrongly hybridized segment pairs are separated; wherein

said one or more electrodes are provided with protrusions formed at spatial positions corresponding to sites whereat gather a plurality of types of biopolymer segments within said container; wherein conductive members are formed at spatial posi-

tions corresponding to said sites.

77.(original) The apparatus of claim 76, wherein said biopolymer segments are DNA, RNA, PNA or electrically charged proteins.

78.(currently amended) A measuring apparatus for measuring genetic sequence of electrically charged biopolymers by hybridization, said apparatus comprising:

[a] an insulating container that contains known biopolymer segments fixed onto an inner wall of said container and unknown biopolymer segments existing in a solution contained within said container which are to be hybridized, said container being removable from said measuring apparatus;

one or more electrodes disposed to be adjacent to said container for applying an electrical field to said container, said one or more electrodes being electrically insulated from said container; and

means for altering direction of said electrical field so that wrongly hybridized segment pairs are separated; wherein

said one or more electrodes are ~~provided-with-protrusions-~~formed at least at spatial positions corresponding to sites whereat gather a plurality of types of biopolymer segments within said container, wherein

said container is a film; wherein

conductive members are formed at spatial positions corresponding to said sites; and wherein

said one or more electrodes are in mechanical contact with said container and are made of transparent film.

79.(original) The apparatus of claim 78, wherein said bio-

polymer segments are DNA, RNA, PNA or electrically charged proteins.

80.(original) The apparatus of claim 76, wherein said container is made of a film.

81. (cancelled)

82.(currently amended) A measuring apparatus for measuring genetic sequence of electrically charged biopolymers by hybridization, said apparatus comprising:

a container that contains known bipolymer segments fixed onto an inner wall of said container and unknown biopolymer segments existing in a solution contained within said container which are to be hybridized, said container being removable from said measuring apparatus;

one or more electrodes disposed to be adjacent to said container for applying an electrical field to said container, said one or more electrodes being electrically insulated from said container; and

means for altering direction of said electric field so that wrongly hybridized segment pairs are separated; wherein

said one or more electrodes are ~~provided-with-protrusions~~ formed at least at spatial positions corresponding to sites whereat gather a plurality of types of biopolymer segments within said container; and wherein

said one or more electrodes are transparent electrodes.

83.(original) The apparatus of claim 82, wherein said one or more transparent electrodes are made of an ITO film.